



09/731,758
12/8/00

IN THE CLAIMS:

Please amend claims 1-84 and add claim 85 as follows.

1. (Currently Amended) A method, comprising: ~~of controlling access of a subscriber to a network comprising:~~

sending, from a visited network of a plurality of networks ~~connected~~ to a home network, an identification of ~~the~~ a subscriber and an access to be provided to the subscriber;

in response to the identification of the subscriber and access to be provided to the subscriber, storing, in the visited network, a subscriber profile of an authorized access of a plurality of authorized accesses to be provided to the subscriber; and

controlling access of the subscriber to a network dependent upon a comparison of the access to be provided to the subscriber and the stored subscriber profile having the authorized access of the plurality of authorized accesses,

wherein an application level registration message including the identification of the subscriber is generated in response to a request from a subscriber equipment to the visited network, and

wherein the visited network receiving the request transmits an update location message to the home network for informing the home network of the identification of the subscriber and a particular network at which the subscriber is located.

2. (Currently Amended) A The method in accordance with claim 1 wherein,[[:]]

the storing of the subscriber profile is in the home network.

3. (Currently Amended) A The method in accordance with claim 1 wherein,[[:]] the storing of the subscriber profile is in the visited network.

4. (Currently Amended) A The method in accordance with claim 1 wherein,[[:]] each different access provides a different degree of bandwidth in communications.

5. (Currently Amended) A The method in accordance with claim 1 wherein,[[:]] each access provides for a different degree of security in communications.

6. (Currently Amended) A The method in accordance with claim 1 wherein,[[:]] each access provides different connection supplementary services.

7. (Currently Amended) A The method in accordance with claim 2 wherein,[[:]] each access provides a different degree of bandwidth in communications.

8. (Currently Amended) A The method in accordance with claim 2 wherein,[[:]] each access provides for a different degree of security in communications.

9. (Currently Amended) A The method in accordance with claim 2 wherein,[[:]] each access provides different connection supplementary services.

10. (Currently Amended) A The method in accordance with claim 3 wherein,[[:]] each access provides a different degree of bandwidth in communications.

11. (Currently Amended) A The method in accordance with claim 3 wherein,[[:]] each access provides for a different degree of security in communications.

12. (Currently Amended) A The method in accordance with claim 3 wherein,[[:]] each access provides different connection supplementary services.

13. (Currently Amended) A The method in accordance with claim 1 wherein,[[:]] the home network is an internet protocol network and the visited network is a wireless public cellular bearer network.

14. (Currently Amended) A The method in accordance with claim 13 wherein,[[:]]

the public cellular bearer network is a general packet radio system network.

15. (Currently Amended) A The method in accordance with claim 1
wherein,[[:]]
the home network is an internet protocol network and the visited network is an
internet service provider.

16. (Currently Amended) A The method in accordance with claim 1
wherein,[[:]] the home network is an internet protocol network and the one visited
network is a wireless local area network.

17. (Currently Amended) A The method in accordance with claim 1
wherein,[[:]] the access is chosen from the plurality of authorized accesses which may be
granted to the subscriber.

18. (Currently Amended) A The method in accordance with claim 2
wherein,[[:]] the access is chosen from the plurality of authorized accesses which may be
granted to the subscriber.

19. (Currently Amended) A The method in accordance with claim 3
wherein,[[:]] the access is chosen from the plurality of authorized accesses which may be
granted to the subscriber.

20. (Currently Amended) A The method in accordance with claim 4
wherein,[[:]] the access is chosen from the plurality of authorized accesses which may be
granted to the subscriber.

21. (Currently Amended) A The method in accordance with claim 5
wherein,[[:]] the access is chosen from the plurality of authorized accesses which may be
granted to the subscriber.

22. (Currently Amended) A The method in accordance with claim 6
wherein,[[:]] the access is chosen from the plurality of authorized accesses which may be
granted to the subscriber.

23. (Currently Amended) A The method in accordance with claim 7
wherein,[[:]] the access is chosen from the plurality of authorized accesses which may be
granted to the subscriber.

24. (Currently Amended) A The method in accordance with claim 8
wherein,[[:]] the access is chosen from the plurality of authorized accesses which may be
granted to the subscriber.

25. (Currently Amended) A The method in accordance with claim 9
wherein,[[:]] the access is chosen from the plurality of authorized accesses which may be
granted to the subscriber.

26. (Currently Amended) A The method in accordance with claim 10
wherein,[[:]] the access is chosen from the plurality of authorized accesses which may be
granted to the subscriber.

27. (Currently Amended) A The method in accordance with claim 11
wherein,[[:]] the access is chosen from the plurality of authorized accesses which may be
granted to the subscriber.

28. (Currently Amended) A The method in accordance with claim 12
wherein,[[:]] the access is chosen from the plurality of authorized accesses which may be
granted to the subscriber.

29. (Currently Amended) A The method in accordance with claim 13 wherein,[[[:]] the access is chosen from the plurality of authorized accesses which may be granted to the subscriber.

30. (Currently Amended) A The method in accordance with claim 15 wherein,[[[:]] the access is chosen from the plurality of authorized accesses which may be granted to the subscriber.

31. (Currently Amended) A The method in accordance with claim 16 wherein,[[[:]] the access is chosen from the plurality of authorized accesses which may be granted to the subscriber.

32. (Currently Amended) A The method in accordance with claim 1 wherein,[[[:]] an application level registration message containing the identification of the subscriber and the access is generated in response to a request from subscriber equipment to a visited network entity;

in response to an entity in the visited network receiving the request, an address of an entity in the home network is obtained from a routing analysis in the visited network;
and

the application level registration message is transmitted to the address in the home network.

33. (Currently Amended) A The method in accordance with claim 32 wherein,[[:]] an entity of the home network obtains the subscriber profile in response to receipt of the application level registration message.

34. (Currently Amended) A system comprising:

- a home network which stores a plurality of subscriber profiles each defining an access to be provided to a subscriber of a network;
- a plurality of networks connected to the home network;
- a subscriber equipment connected to a visited one of the plurality of networks through which the subscriber obtains an access to any network; and

wherein in response to connection of the subscriber equipment to the visited network, an identification of the subscriber and an access to be provided to the subscriber is sent from the visited network to the home network, and

a subscriber profile of an authorized access of a plurality of authorized accesses to be provided to the subscriber is stored in one of the plurality of networks and access of the subscriber to the network is controlled by one of the plurality of networks storing the subscriber profile dependent upon a comparison of the access to be provided to the subscriber and the stored subscriber profile having the authorized access of the plurality of authorized accesses,

wherein an application level registration message including the identification of the subscriber is generated in response to a request from a subscriber equipment to the visited network, and

wherein the visited network receiving the request transmits an update location message to the home network for informing the home network of the identification of the subscriber and a particular network at which the subscriber is located.

35. (Currently Amended) A The system in accordance with claim 34 further comprising,[[:]] a network entity within the home network which stores the subscriber profile.

36. (Currently Amended) A The system in accordance with claim 34 further comprising:

a network entity within the visited network which stores the subscriber profile.

37. (Currently Amended) A method, ~~of controlling access of a subscriber to register in networks~~ comprising:

during or after the subscriber registers in a network, providing an identification of the subscriber and an access of a plurality of accesses, to a visited network of a plurality of networks from a home network of the subscriber, the access comprising an

identification of access from the plurality of accesses to one of the plurality networks in which the subscriber is registered,

wherein an application level registration message including the identification of the subscriber is generated in response to a request from a subscriber equipment to the visited network, and

wherein the visited network receiving the request transmits an update location message to the home network for informing the home network of the identification of the subscriber and a particular network at which the subscriber is located.

38. (Currently Amended) A The method in accordance with claim 37 wherein,[[[:]] in response to the providing of the identification of the subscriber and the access at the home network, storing a subscriber profile indicating an access to be provided to the subscriber to at least the networks; and using the stored subscriber profile in controlling service provided to the subscriber.

39. (Currently Amended) A The method in accordance with claim 38 wherein,[[[:]] the controlling of the service provided to the subscriber occurs while the subscriber is registered in a visited network and the networks are access networks from which the subscriber may obtain services while roaming in the visited network.

40. (Currently Amended) A The method in accordance with claim 39 wherein,[[:]] the controlling of the service provided to the subscriber occurs from a request of a call controlling entity.

41. (Currently Amended) A The method in accordance with claim 37 comprising:

storing the subscriber profile in the home network.

42. (Currently Amended) A The method in accordance with claim 39 comprising:

storing the subscriber profile in the home network.

43. (Currently Amended) A The method in accordance with claim 39 comprising:

storing the subscriber profile in the visited network.

44. (Currently Amended) A The method in accordance with claim 37 wherein,[[:]] the sending of the identification of the subscriber and an access occurs in response to the transmission of an access type indicator identifying a network in which the subscriber is registered through the visited network to the home network or in response to a request from a call serving entity.

45. (Currently Amended) A The method in accordance with claim 39 wherein,[[:]] the sending of the identification of the subscriber and an access occurs in response to the transmission of an access type indicator identifying a network in which the subscriber is registered through the visited network to the home network or in response to a request from a call serving entity.

46. (Currently Amended) A The method in accordance with claim 41 wherein,[[:]] the sending of the identification of the subscriber and an access occurs in response to the transmission of an access type indicator identifying a network in which the subscriber is registered through the visited network to the home network.

47. (Currently Amended) A The method in accordance with claim 42 wherein,[[:]] the sending of the identification of the subscriber and an access occurs in response to the transmission of an access type indicator identifying a network in which the subscriber is registered through the visited network to the home network.

48. (Currently Amended) A The method in accordance with claim 43 wherein,[[:]] the subscriber profile comprises general service data used in providing service to the subscriber and data regarding permitted access of the subscriber to the networks.

49. (Currently Amended) A The method in accordance with claim 44 wherein,[[:]] the subscriber profile comprises general service data used in providing service to the subscriber and data regarding permitted access of the subscriber to the access networks.

50. (Currently Amended) A The method in accordance with claim 45 wherein,[[:]] the subscriber profile comprises general service data used in providing service to the subscriber and data regarding permitted access of the subscriber to the access networks.

51. (Currently Amended) A The method in accordance with claim 46 wherein,[[:]] the subscriber profile comprises general service data used in providing service to the subscriber and data regarding permitted access of the subscriber to the networks.

52. (Currently Amended) A The method in accordance with claim 47 wherein,[[:]] the subscriber profile comprises general service data used in providing service to the subscriber and data regarding permitted access of the subscriber to the access networks.

53. (Currently Amended) A The method in accordance with claim 46 wherein,[[:]] the subscriber profile comprises general service data used in providing service to the subscriber and data regarding permitted access of the subscriber to the access networks.

54. (Currently Amended) A The method in accordance with claim 47 wherein,[[:]] the subscriber profile comprises general service data used in providing service to the subscriber and data regarding permitted access of the subscriber to the access networks.

55. (Currently Amended) A The method in accordance with claim 42 wherein,[[:]] the application level of access originates from equipment of the subscriber registered to one of the networks.

56. (Currently Amended) A The method in accordance with claim 43 wherein,[[:]] the access originates from an entity providing an interface between the visited network and one of the access networks to which the subscriber is registered.

57. (Currently Amended) A The method in accordance with claim 44 wherein,[[:]] the access is determined by a call control entity based upon information obtained by the control entity about the network to which the subscriber is registered.

58. (Currently Amended) A The method in accordance with claim 39 wherein,[[[:]] in response to at least one subsequent identification of the subscriber and the access being provided at the home network, the home network sends to the visited network an acknowledgment of a change in registration of the subscriber to another access network.

59. (Currently Amended) A The method in accordance with claim 37 wherein,[[[:]] the access is used by the home network to control connectivity of communications to the subscriber through the home network.

60. (Currently Amended) A The method in accordance with claim 39 wherein,[[[:]] the access is used by the home network to control connectivity of communications to the subscriber through the home network.

61. (Currently Amended) A The method in accordance with claim 41 wherein,[[[:]] the access is used by the home network to control connectivity of communications to the subscriber through the home network.

62. (Currently Amended) A The method in accordance with claim 44 wherein,[[:]] the access is used by the home network to control connectivity of communications to the subscriber through the home network.

63. (Currently Amended) A The method in accordance with claim 48 wherein,[[:]] the access is used by the home network to control connectivity of communications to the subscriber through the home network.

64. (Currently Amended) A The method in accordance with claim 55 wherein,[[:]] the access is used by the home network to control connectivity of communications to the subscriber through the home network.

65. (Currently Amended) A The method in accordance with claim 56 wherein,[[:]] the access is used by the home network to control connectivity of communications to the subscriber through the home network.

66. (Currently Amended) A The method in accordance with claim 57 wherein,[[:]] the access is used by the home network to control connectivity of communications to the subscriber through the home network.

67. (Currently Amended) A The method in accordance with claim 58 wherein,[[:]] the access is used by the home network to control connectivity of communications to the subscriber through the home network.

68. (Currently Amended) A method ~~of controlling access of a subscriber to register in networks~~ comprising:

providing an identification of the subscriber, to a visited network of at least one of a plurality of networks from a home network;

in response to the providing of the identification of the subscriber, storing a subscriber profile of an access of a plurality of accesses to be provided to the subscriber in the visited network; and

using the stored subscriber profile in controlling service provided to the subscriber,

wherein an application level registration message including the identification of the subscriber is generated in response to a request from a subscriber equipment to the visited network, and

wherein the visited network receiving the request transmits an update location message to the home network for informing the home network of the identification of the subscriber and a particular network at which the subscriber is located.

69. (Currently Amended) A The method in accordance with claim 68 wherein,[[:]] the controlling of the service provided to the subscriber occurs while the subscriber is registered in a visited network and the networks are access networks from which the subscriber may obtain services while registered in the visited network.

70. (Currently Amended) A The method in accordance with claim 68 comprising:
storing the subscriber profile in the home network.

71. (Currently Amended) A The method in accordance with claim 69 comprising,[[:]] storing the subscriber profile in the home network.

72. (Currently Amended) A The method in accordance with claim 69 comprising,[[:]] storing the subscriber profile in the visited network.

73. (Currently Amended) A The method in accordance with claim 69 wherein,[[:]] the providing of the identification of the subscriber occurs in response to transmission of an access type indicator to the home network identifying an access network.

74. (Currently Amended) A The method in accordance with claim 70 wherein,[[:]] the providing of the identification of the subscriber occurs in response to transmission of an access type indicator to the home network identifying an access network.

75. (Currently Amended) A The method in accordance with claim 71 wherein,[[:]] the access originates from equipment of the subscriber registered to one of the networks.

76. (Currently Amended) A The method in accordance with claim 72 wherein,[[:]] the access originates from an interlace between the visited network and one of the access networks.

77. (Currently Amended) A The method in accordance with claim 71 wherein,[[:]] the access is determined by a call control entity based upon information obtained by the control entity about the network.

78. (Currently Amended) A system comprising:
networks in which a subscriber may register;

a home network in which a plurality of subscriber profiles are stored, each of the profiles defining an access to be provided to the subscriber while registered in the networks;

a subscriber equipment which is connected to the networks while the subscriber is registered therein; and

wherein in response to connection of the subscriber equipment to one of the networks at least an identification of the subscriber is provided from a visited network of the networks to the home network,

wherein a subscriber profile of an access of a plurality of accesses to be provided to the subscriber by at least one of the networks is stored, and the stored subscriber profile is used in controlling service provided to the subscriber,

wherein an application level registration message including the identification of the subscriber is generated in response to a request from a subscriber equipment to the visited network, and

wherein the visited network receiving the request transmits an update location message to the home network for informing the home network of the identification of the subscriber and a particular network at which the subscriber is located.

79. (Currently Amended) A The system in accordance with claim 78
wherein,[[:]] the controlling of the service provided to the subscriber occurs while the

subscriber is registered in a visited network and the networks are access networks from which the subscriber may obtain services while registered in the visited network.

80. (Currently Amended) A The system in accordance with claim 78 comprising,[[:]] a storage in a visited network which stores the subscriber profile.

81. (Currently Amended) A The system in accordance with claim 79 comprising,[[:]] a storage in the visited network which stores the subscriber profile.

82. (Currently Amended) A The system in accordance with claim 79 wherein,[[:]] an access comprising an identification of access to one of the networks in which the subscriber is registered is transmitted from the visited network to the home network and the storing of the subscriber profile is in response to the identification of access at the homework.

83. (Currently Amended) A The system in accordance with claim 79 wherein,[[:]] the stored subscriber profile is used by the visited network in controlling service provided to the subscriber.

84. (Currently Amended) A The method in accordance with claim 1 wherein,[[:]] the access is an application level access.

85. (New) A apparatus, comprising:

sending means for sending, from a visited network of a plurality of networks to a home network, an identification of a subscriber and an access to be provided to the subscriber;

in response to the identification of the subscriber and access to be provided to the subscriber, storing means for storing, in the visited network, a subscriber profile of an authorized access of a plurality of authorized accesses to be provided to the subscriber;

controlling means for controlling access of the subscriber to a network dependent upon a comparison of the access to be provided to the subscriber and the stored subscriber profile having the authorized access of the plurality of authorized accesses,

generating means for generating an application level registration message including the identification of the subscriber in response to a request from a subscriber equipment to the visited network; and

transmitting means for transmitting, in the visited network receiving the request, an update location message to the home network for informing the home network of the identification of the subscriber and a particular network at which the subscriber is located.